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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/744,420

Filing Date: March 06, 2001

Appellant(s): SANDERSON, KEVIN DAVID

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Mark A. Hixon  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 16 June 2008 appealing from the Office action mailed 16 August 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal. The appeal of October 12, 2006, as mentioned by the applicant in this section, has no bearing on the current appeal, as stated by the applicant.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. However, under the rejection labeled "C" the applicant includes claims 17-28 which should be claims 17-18 as rejected under this combination on p 11 of the Non-Final office action of 16 August 2007.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,385,751	RIAZ et al.	01-1995
4,687,560	TRACY et al.	08-1987
6,268,019	FLORCZAK	07-2001
6,048,621	GALLEGO et al.	04-2000
5,324,537	PROSCIA et al.	06-1994

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims (For simplicity, the Examiner will label each rejection as the applicant does in the instant Appeal Brief):

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

A. Claims 1-4, 6-8, 10-16, 18, 34, 38-42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riaz et al. (US 5,385,751) in view of Tracy et al. (US 4,687,560) and Florczak (US 6,268,019 B1).

As to claims 1, 6-8, 10-12, 14-15, 40-42 and 44, Riaz teaches a method of coating a glass substrate (column 3, line 23) with a fluorine-doped tungsten oxide layer using a CVD process. The process may occur during the well-known float glass process and at 500°C (column 3, line 20). Riaz teaches that trifluoroacetic acid, as the fluorine source for doping, may be simultaneously added to a gas stream that comprises tungsten alkoxides and an oxygen source (column 2, line 54). One of

ordinary skill in the art would recognize that by including this fluorine ester precursor in the vapor deposition process, the ester would inevitably contribute oxygen to the resulting oxide. Riaz also teaches a method of entraining the tungsten precursors where nitrogen is used as the carrier gas (column 3, lines 58-68).

Riaz does not explicitly teach the use of the applicant's tungsten precursor. However, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the precursors of Tracy in order to produce the tungsten oxide layer of Riaz. By doing so, one would have a reasonable expectation of success, as Tracy teaches the art recognized suitability of using tungsten chloride or tungsten oxytetrachloride in place of tungsten hexafluoride in a CVD process for depositing tungsten oxides. Florczak teaches process parameters for depositing the metal halides, a well-known metal precursor class, under atmospheric and float glass conditions similar to that of Riaz, giving one of ordinary skill in the art further evidence of a reasonable expectation of success when using the precursors of Tracy in the process of Riaz.

As to claim 3, Tracy teaches that either tungsten chloride or tungsten oxytetrachloride may be used as the precursor in place of tungsten hexafluoride for depositing a tungsten oxide film by CVD (column 5, lines 30-40). The pressure of the process taught by Tracy is significantly lower than the atmospheric pressure CVD method taught by Proscia. Therefore, in order to further prove that one would have a reasonable expectation of success, the examiner points to the teachings of Florczak. Florczak teaches an atmospheric pressure CVD method for depositing metal oxide

coatings to float glass by decomposing metal chlorides (abstract). From the combined teachings of Tracy and Florczak, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize either tungsten oxytetrachloride or tungsten chloride as the precursor for the process taught by Riaz with an expectation of attaining similar results.

As to claim 4, the reference fails to explicitly teach that the tungsten chloride is substituted. However, Tracy does teach that the precursor is either tungsten chloride or tungsten oxyhalide (column 5, lines 15-20). It is the examiner's position that one of ordinary skill in the art would recognize that by the reference teaching that the ligand of the tungsten precursor being capable of being either chloride or an oxyhalide, that it is implied that the oxyhalide substituent and the chloride substituent behave the same way in the reaction-deposition process. Therefore, it would have been obvious that if a tungsten precursor with a chloride ligand may be used, and a tungsten precursor with an oxyhalide ligand may be used, then one of ordinary skill in the art would have a reasonable expectation to believe that a tungsten precursor containing chlorides and oxyhalides as its ligands would succeed in performing the process as taught. To use the substituted precursor would have been obvious at the time the invention was made to a person having ordinary skill in the art with the expectation of achieving similar results, as discussed above.

As to claims 13, 16, 34, 38, and 39, Florczak teaches the claimed substrate temperature (column 6, lines 45-50) and precursor temperature (column 4, lines 35-40).

It is well known in the art to use a temperature just below the melting point of the material, since the material is heated but still remains a solid.

As to claim 18, Riaz fails to teach the growth rate of the deposited film. However, to achieve maximum rate without sacrificing film quality would have been obvious and within the skill of one practicing in the art, absence evidence of criticality.

B. Claims 9, 17, 19-22, 35-37 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riaz et al. (US 5,385,751) in view of Tracy et al. (US 4,687,560) and Florczak (US 6,268,019 B1) as applied above, and in further view of Gallego et al. (US 6,048,621).

As to claims 9 and 17, Riaz et al. in view of Tracy et al. and Florczak disclose all the limitations of claims 9 and 17 as discussed above except for depositing a non-stoichiometric tungsten oxide. Gallego et al. teaches the recognized suitability of depositing tungsten oxide on glass in a non-stoichiometric manner in a thickness of 50-500 nm in order to receive a glass that possesses heat absorbing layers that absorb at wavelengths above 700 nm (abstract and column 2 lines 24-45). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Riaz et al. in view of Tracy et al. and Florczak to include a non-stoichiometric tungsten oxide layer with a thickness of 50-500 nm as taught by Gallego et al. in order to receive a glass that possesses heat absorbing layers that absorb at wavelengths above 700 nm.



As to claims 19-22, Riaz et al. in view of Tracy et al. and Florczak disclose all the limitations of claims 19-22 as discussed above with the exception of the claimed overlayers. Gallego et al. teaches depositing a layer over the tungsten oxide that is made up of the claimed oxides in order to provide a low emissivity layer and make the layers coated on the glass suitable for use as a solar control glass in a building (column 2 lines 45-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Riaz et al. in view of Tracy et al. and Florczak to include an overlayer with the claimed metal oxides as taught by Gallego et al. in order to provide a low emissivity layer and make the layers coated on the glass suitable for use as a solar control glass in a building.

As to claims 35-37, Riaz et al. in view of Tracy et al. and Florczak disclose all the limitations of claims 35-37 as discussed above with the exception of an underlayer composed of the claimed materials. Gallego et al. teaches a layer under the tungsten oxide on the glass made of the claimed materials to suppress iridescence in the glass (column 3 lines 40-45). It would have been obvious to one of ordinary skill in the art to modify Riaz et al. in view of Tracy et al. and Florczak to include an underlayer made of the claimed materials as taught by Gallego et al. in order to suppress iridescence in the glass.

As to claim 43, Gallego teaches the multiple-glazing unit with the coated glass in spaced opposed relation to the glazing plane (column 4, lines 38-45).

C. Claims 1, 2, 6-8, 10-16, 17-18, 34, and 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Florczak (US 6,268,019 B1) in view of Proscia et al. (US 5,324,537), or vice versa, in view of Riaz (US 5,385,751).

Florczak teaches a method of coating a glass substrate with a fluorine-doped metal oxide layer (column 6, lines 55-65). The process may occur during the well-known float glass process (column 4, lines 50-29). Florczak teaches trifluoroacetic acid as the fluorine source for doping (column 4, lines 47-51). Oxygen sources are taught (column 4, lines 30-39). Substrate temperatures are taught (column 6, lines 45-50). The reference fails to explicitly teach depositing tungsten oxides.

Proscia teaches a method of forming fluorine doped tungsten oxide films that are applied to glass substrates during the float glass production process (column 2, lines 30-35). By doing so, a suitable solar control glass is formed (column 1, lines 25-31). A temperature range for the substrate is taught (column 3, lines 1-4). The precursor for the fluorine doping is taught (column 3, lines 33-42). The reference is silent to the precursors of the tungsten oxide film.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to deposit tungsten oxide by the method taught by Florczak, i.e. using tungsten as the metal in the metal chloride taught. By doing so, one would reap the benefits of achieving suitable solar control, as taught by Proscia.

It also would have been obvious to use the metal chloride precursors taught by Florczak in the process taught by Proscia. By doing so, one would have a reasonable

expectation of success, as Proscia teaches a process, but is silent to the precursors, and Florczak teaches precursors to a similar process.

The combined references are silent to using an ester as the oxygen source. However, Riaz teaches the art recognized suitability for using an ester as the oxygen source in such a process. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use an ester in the process taught above. By doing so, one would have a reasonable expectation of success, as Riaz teaches the art recognized suitability of doing such. Riaz et al. teaches the remainder of the claim limitations as discussed above.

D. Claims 9, 17, 19-22, 35-37 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Florczak (US 6,268,019 B1) in view of Proscia et al. (US 5,324,537), or vice versa, in view of Riaz (US 5,385,751) as applied above and in further view of Gallego (US 6,048,621).

As to claims 9 and 17, Florczak in view of Proscia et al., or vice versa, in view of Riaz disclose all the limitations of claims 9 and 17 as discussed above except for depositing a non-stoichiometric tungsten oxide. Gallego et al. teaches the recognized suitability of depositing tungsten oxide on glass in a non-stoichiometric manner in a thickness of 50-500 nm in order to receive a glass that possesses heat absorbing layers that absorb at wavelengths above 700 nm (abstract and column 2 lines 24-45). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify

Florczak in view of Proscia et al., or vice versa, in view of Riaz to include a non-stoichiometric tungsten oxide layer with a thickness of 50-500 nm as taught by Gallego et al. in order to receive a glass that possesses heat absorbing layers that absorb at wavelengths above 700 nm.

As to claims 19-22, Florczak in view of Proscia et al., or vice versa, in view of Riaz disclose all the limitations of claims 19-22 as discussed above with the exception of the claimed overlayers. Gallego et al. teaches depositing a layer over the tungsten oxide that is made up of the claimed oxides in order to provide a low emissivity layer and make the layers coated on the glass suitable for use as a solar control glass in a building (column 2 lines 45-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Florczak in view of Proscia et al., or vice versa, in view of Riaz to include an overlayer with the claimed metal oxides as taught by Gallego et al. in order to provide a low emissivity layer and make the layers coated on the glass suitable for use as a solar control glass in a building.

As to claims 35-37, Florczak in view of Proscia et al., or vice versa, in view of Riaz disclose all the limitations of claims 35-37 as discussed above with the exception of an underlayer composed of the claimed materials. Gallego et al. teaches a layer under the tungsten oxide on the glass made of the claimed materials to suppress iridescence in the glass (column 3 lines 40-45). It would have been obvious to one of ordinary skill in the art to modify Florczak in view of Proscia et al., or vice versa, in view of Riaz to include an underlayer made of the claimed materials as taught by Gallego et al. in order to suppress iridescence in the glass.

As to claim 43, Gallego teaches the multiple-glazing unit with the coated glass in spaced opposed relation to the glazing plane (column 4, lines 38-45).

E. Claims 1-4, 6-8, 10-16, 18, 34, 38- 42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Proscia (US 5,286,520) in view of Tracy et al. (US 4,687,560) and Florczak (US 6,268,019 B1), in further view of Riaz (US 5,385,751).

Proscia teaches a method of coating a glass substrate (column 4, lines 25-30) with a fluorine-doped tungsten oxide layer for producing solar control glass. The process may occur during the well-known float glass process (column 3, lines 45-50). Proscia teaches that trifluoroacetic acid, as the fluoride source for doping, may be simultaneously added to a gas stream comprising oxygen and tungsten hexafluoride (column 3, line 33). Proscia also teaches a method of entraining the tungsten precursors where nitrogen is used as the carrier gas (column 4, lines 13-22).

The reference fails to explicitly teach the use of a tungsten chloride or an oxyhalide as the tungsten precursor. However, Tracy teaches that either tungsten chloride or tungsten oxytetrachloride may be used as the precursor in place of tungsten hexafluoride for depositing a tungsten oxide film by CVD (column 5, lines 30-40). The pressure of the process taught by Tracy is significantly lower than the atmospheric pressure CVD method taught by Proscia. Therefore, in order to further prove that one would have a reasonable expectation of success, the examiner points to the teachings of Florczak. Florczak teaches an atmospheric pressure CVD method for depositing

metal oxide coatings to float glass by decomposing metal chlorides (abstract). From the combined teachings of Tracy and Florczak, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to utilize either tungsten oxytetrachloride or tungsten chloride as the precursor for the process taught by Proscia. By doing so, one would have a reasonable expectation of success, as Tracy teaches the art recognized suitability of using tungsten chloride or tungsten oxytetrachloride in place of tungsten hexafluoride in a CVD process for depositing tungsten oxides and Florczak teaches process parameters for depositing the equivalent precursors under atmospheric conditions. Florczak teaches the claimed substrate temperature (column 6, lines 45-50) and precursor temperature (column 4, lines 35-40).

As to claim 4, the reference fails to explicitly teach that the tungsten chloride is substituted. However, Tracy does teach that the precursor is either tungsten chloride or tungsten oxyhalide (column 5, lines 15-20). It is the examiner's position that one of ordinary skill in the art would recognize that by the reference teaching that the ligand of the tungsten precursor being capable of being either chloride or an oxyhalide, that it is implied that the oxyhalide substituent and the chloride substituent behave the same way in the reaction-deposition process. Therefore, it would have been obvious that if a tungsten precursor with a chloride ligand may be used, and a tungsten precursor with an oxyhalide ligand may be used, then one of ordinary skill in the art would have a reasonable expectation to believe that a tungsten precursor containing chlorides and oxyhalides as its ligands would succeed in performing the process as taught. To use the substituted precursor would have been obvious at the time the invention was made

to a person having ordinary skill in the art with the expectation of achieving similar results, as discussed above.

As to claim 18, Proscia fails to explicitly teach the growth rate of the deposited film. However, to achieve maximum rate without sacrificing film quality would have been obvious and within the skill of one practicing in the art, absence evidence of criticality.

The combined references are silent to using an ester as the oxygen source. However, Riaz teaches the art recognized suitability for using an ester as the oxygen source in such a process. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to use an ester in the process taught above. By doing so, one would have a reasonable expectation of success, as Riaz teaches the art recognized suitability of doing such.

F. Claims 9, 17, 19-22, 35-37 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Proscia (US 5,286,520) in view of Tracy et al. (US 4,687,560), Florczak (US 6,268,019 B1), and Riaz (US 5,385,751) as applied above and in further view of Gallego (US 6,048,621).

As to claims 9 and 17, Proscia in view of Tracy et al., Florczak and Riaz disclose all the limitations of claims 9 and 17 as discussed above except for depositing a non-stoichiometric tungsten oxide. Gallego et al. teaches the recognized suitability of depositing tungsten oxide on glass in a non-stoichiometric manner in a thickness of 50-

500 nm in order to receive a glass that possesses heat absorbing layers that absorb at wavelengths above 700 nm (abstract and column 2 lines 24-45). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Proscia in view of Tracy et al., Florczak and Riaz to include a non-stoichiometric tungsten oxide layer with a thickness of 50-500 nm as taught by Gallego et al. in order to receive a glass that possesses heat absorbing layers that absorb at wavelengths above 700 nm.

As to claims 19-22, Proscia in view of Tracy et al., Florczak and Riaz disclose all the limitations of claims 19-22 as discussed above with the exception of the claimed overlayers. Gallego et al. teaches depositing a layer over the tungsten oxide that is made up of the claimed oxides in order to provide a low emissivity layer and make the layers coated on the glass suitable for use as a solar control glass in a building (column 2 lines 45-65). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Proscia in view of Tracy et al., Florczak and Riaz to include an overlayer with the claimed metal oxides as taught by Gallego et al. in order to provide a low emissivity layer and make the layers coated on the glass suitable for use as a solar control glass in a building.

As to claims 35-37, Proscia in view of Tracy et al., Florczak and Riaz disclose all the limitations of claims 35-37 as discussed above with the exception of an underlayer composed of the claimed materials. Gallego et al. teaches a layer under the tungsten oxide on the glass made of the claimed materials to suppress iridescence in the glass (column 3 lines 40-45). It would have been obvious to one of ordinary skill in the art to modify Proscia in view of Tracy et al., Florczak and Riaz to include an underlayer made



of the claimed materials as taught by Gallego et al. in order to suppress iridescence in the glass.

As to claim 43, Gallego teaches the multiple-glazing unit with the coated glass in spaced opposed relation to the glazing plane (column 4, lines 38-45).

#### **(10) Response to Argument**

The Examiner will again use the same labels provided by the applicant for each rejection for simplicity. The applicant begins the argument section on page 14 of the instant Appeal Brief by stating that independent claim 20 was rejected under combination C. As was stated above, claim 20 was not rejected under combination C, but D as shown in the Non-final rejection of 16 August 2007.

A. Riaz et al. in view of Tracey et al. and Florczak

The rejection of claim 1 and other similar independent claims as presented by the examiner under this combination may be simplified in this manner: Riaz et al. teaches all elements of the claim, including the float glass process making a tungsten oxide as discussed above, except for the particular tungsten precursor. Tracy et al. teaches the claimed tungsten precursor in an analogous CVD process but does not use a float glass process. Florczak ties the references of Riaz et al. and Tracy et al. together by showing that analogous precursors to those of Tracy et al. may be used in a float glass process such as that in Riaz.

As to claim 1, the applicant argues that Mr. Sanderson's declaration states that the applied references are not applicable to on-line processes. This is not found convincing because it is contrary to evidence presented by the prior art – Riaz et al. and Florczak are both on-line float glass process as the invention claims and as will be discussed further below. Further, Riaz et al. teaches that any hot glass process can be modified into and on-line float glass process in column 6 lines 18-22.

The applicant further argues that one would not look to the plasma process of Tracy et al. to modify the precursors of Riaz et al. It is noted that the applicant's statements regarding the Gallego reference in this section are irrelevant, as this rejection does not include Gallego and the Riaz et al. reference includes the claim limitations in its own right as discussed above. The applicant asserts that process conditions in CVD and plasma CVD are too different to allow the combination to be valid, and again sites the declaration of Mr. Sanderson. This argument is not found convincing. "Chemical vapor deposition" is a broad term that encompasses any process where a gaseous phase reaction occurs and deposits a layer. This includes many types of processes, including plasma assisted chemical vapor deposition. Specifically, plasma assisted chemical vapor deposition process is a type of chemical vapor deposition. Plasma assisted CVD only uses plasma energies to initiate a reaction, instead of thermal energies in thermal CVD. Though plasma assisted CVD may be recognized by one of ordinary skill in the art as possibly (and not in all cases) being able to operate at lower temperatures than its thermal counterpart, this would have little to no bearing on the choice of precursor, as the activation energies for such a reaction are the same

when using the same reactants, plasma only provides a different way of providing that activation energy. This is further evidenced Florczak showing that metal halide precursors can indeed be used in float glass processes such as that in Riaz et al. Plasma is used to assist the chemical vapor deposition process, not radically alter it. Thus, Tracy obviously teaches the art recognized suitability of using tungsten chlorides. Further, "a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense." (*KSR International Co v. Teleflex Inc.*, 550 US--, 82 USPQ2d 1385(2007)). Therefore, one of ordinary skill, when presented with the precursors for making tungsten oxide using plasma for an energy source, would find it within their known options to use the same analogous precursors when making tungsten oxide using heat as an energy source. Further, one of ordinary skill in the art would be charged with the knowledge of a design engineer. This would include the knowledge that plasma assisted chemical vapor deposition is a type of chemical vapor depositions and that like precursors may be used in either, as the chemistry of decomposing metal halides and reaction with an oxide is similar for both processes. Although process parameters may differ (temperature, pressure, deposition rate, etc.), one of ordinary skill in the art would be able to determine these parameters through routine experimentation.

The applicant further argues that Florczak teaches different streams of reactant gas with a blending zone that would not be applicable to an on-line float glass production process. This is not found convincing because Florczak is essentially an on-

line float glass production process. Figure 1 of Florczak shows the hot glass 22 with a deposited coating 23. Obviously the glass would have to be moved to coat the entire glass, and hot glass is moved by an on-line float glass production process (See also Riaz et al. column 6 lines 18-22 – any hot glass process can be an on-line float glass process). The blending zone merely provides a single gas stream and would not render an on-line process improbable as asserted by the applicant. The instant invention even mixes the two gases before deposition in its on-line process. Further, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Any reference made by the applicant as to the instant invention shows a benefit over the current combination is not reflected in the current claims, and is hence irrelevant.

Other arguments pertaining to the plasma process of Tracey et al. were disputed above. The applicant argues that Florczak does not teach tungsten oxide by titanium oxide. However, Florczak, in this capacity, only shows that similar metal halide precursors may be used in hot glass processes and gives further evidence of a reasonable expectation of success when using the precursors of Tracy et al. in the process of Riaz et al. Again, it is uncertain as to what the applicant is arguing with regard to Gallego, as that reference is not present in this rejection.

As to claims 38, 40 and 41, these arguments are disputed as discussed above.

B. Riaz et al. in view of Tracey et al. and Florczak and in further view of Gallego

Claim 20 is essentially the same as the other independent claims, but it adds the provision of a non-stoichiometric tungsten oxide. Again, the applicant uses the Mr. Sanderson reference to state that Riaz et al. is not applicable to on-line float glass processes when Riaz et al. is a float glass process as discussed above (column 6 lines 18-22). Other arguments pertaining to Riaz et al., Tracey et al. and Florczak are disputed as discussed above. With regard to Gallego, the applicant argues that the Gallego uses a magnetron sputtering method of deposition or chemical vapor deposition and is not applicable to plasma CVD processes. However, Gallego is not presumed in the rejection to be applicable to plasma CVD process, but simply shows that a doped oxide - such as that in Riaz et al. or Florczak -- is interchangeable with a non-stoichiometric oxide in the same field of solar control glasses in order to receive a glass that possesses heat absorbing layers that absorb at wavelengths above 700 nm (abstract of Gallego).

C. Florczak in view of Proscia et al, or vice versa, in further view of Riaz et al.

To simplify, in this rejection Florczak teaches the claimed process but uses titanium oxide instead of tungsten oxide. Proscia et al. teaches using tungsten oxide. The vice versa rejection is that Proscia teaches the process except for the claimed precursors, and Florczak teaches that metal halide precursors are common in the art. Riaz et al. is used in both cases to show that esters may be the oxygen source.

As to claim 1, the applicant argues that the temperature range of Proscia et al. is not sufficiently broad enough to enable multi-layer film deposition. However, this limitation, along with the applicant's assertion of advantages of the instant application, is not present in the claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Further, the simple matter of modifying a temperature range would be well within the capabilities of one of ordinary skill in the art, as evidenced by the prior art and the many different temperatures used throughout each float glass process. Though the applicant uses the declaration by Mr. Sanderson to show unsuitability of the Proscia reference with regard to the current claims, it is noted that in the cited paragraphs, Proscia is mainly described and the combination is not argued. Further, the declaration is not convincing as it contradicts evidence given in the prior art as discussed above.

As to claim 20, the applicant asserts that claim 20 should have been rejected under combination D. This is correct, as claim 20 was rejected under combination D in the non-final office action of 16 August 2007 and discussed above. It is unclear what the applicant is arguing here with regards to a plasma process, as a plasma process does not appear in this rejection.

As to claim 38, the applicant argues that the rejection is not applicable to an on-line float glass process. This is not convincing because Florczak and Riaz et al. are float glass processes as discussed above, and Proscia et al. is a float glass process as well (column 3 lines 25-32).

As to claims 40 and 41, these arguments are refuted as discussed above.

D. Florczak in view of Proscia et al, or vice versa, and Riaz et al. in further view of Gallego

As to claim 20, the applicant again argues against plasma CVD processes. As plasma CVD processes are not present in this rejection, this argument is irrelevant.

E. Proscia et al. in view of Tracey et al. and Florczak and in further view of Riaz et al.

This rejection can be simplified by Proscia teaching the claimed process but for the tungsten precursors and an ester as an oxygen source. Both Tracey et al. and Florczak teach the precursors and their suitability for an on-line float glass process as discussed above and Riaz et al. teaches using an ester as an oxygen source. The rejections of claims 1, 38, 40 and 41 should be maintained for the reasons discussed above.

F. Proscia et al. in view of Tracey et al., Florczak and Riaz et al. and in further view of Gallego.

As to claim 20, the applicant does not provide an argument in this section.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Kelly M Stouffer/  
Examiner, Art Unit 1792

Conferees:

/Timothy H Meeks/  
Supervisory Patent Examiner, Art Unit 1792

/Jennifer Michener/  
QAS, TC1700